# DEEPWATER

PEO/SYSCOM Conference Brief





DEEDWATER

System
Requirements
and Acquisition
Integration
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# Agenda



- Deepwater History
- Contract Philosophy/Structure/Flexibility
- Integrated Product Team Structure
- Requirement "Flow-Down"
- Process "Flow-Down"
- Systems Engineering
- Questions



## U.S. Coast Guard Missions



#### **Maritime Safety**

Search and Rescue
International Ice Patrol

#### **Maritime Security**

**Drug Interdiction** 

General Enforcement of Laws and Treaties

**Alien Migrant Interdiction** 

#### **Protection of Natural Resour**

Marine Pollution Enforcement & Response

Living Marine Resource Enforcement

#### **Maritime Mobility**

Lightering Zone Enforcement Foreign Vessel Inspection

#### **National Defense**

**Homeland Security** 

**General Defense Operations** 

**Maritime Interception Operations** 

Military Environmental Defense Operations

Port Operations, Security, & Defense

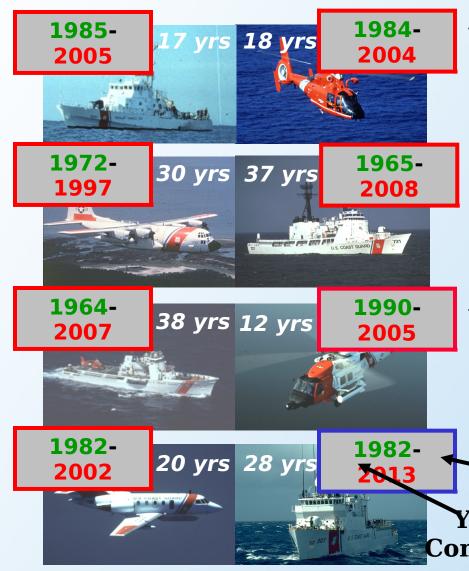
Peacetime Military Engagement

Constal Con Control



# Current Coast Guard Capabilities





#### **Positive:**

- Effective multi-mission capability
- Record cocaine seizures 3 years running
- Innovative endgame initiatives

### **Negative:**

- Missed opportunities can't respond to all available intel
- Huge coverage gaps

  exacerbated by complex

  Year First Expiration of Planned

  Communication of Planned

  communication of Planned

  mitigate resource gaps



# Why Deepwater?



- Secures the Homeland by providing improved Maritime Security and Safety
- Enables the Coast Guard to
  - Maintain credible presence in key maritime regions to deter potential threats to U.S. sovereignty
  - Right way to achieve complex goals through public private partnership
- Provides Nation best national security, military, law enforcement, and search & rescue capability for taxpayer's dollar
- Ensures USCG remains best CG in the world military, multimission, maritime, mobile, agile and flexible

## **Vision Statement:**

"Keeping the U.S. Coast Guard the world's best...



# Solution: Integrated Deepwater System



#### **Performance Based:**

 Focus on capabilities not assets

### **Acquisition Strategy:**

• **Partner** with system integrator



• Acquire *integrated system or* surface, air, C4ISR, and logistics *systems* 

#### **Overarching Objective:**

 Maximize Operational Effectiveness while Minimizing Total Ownership Costs

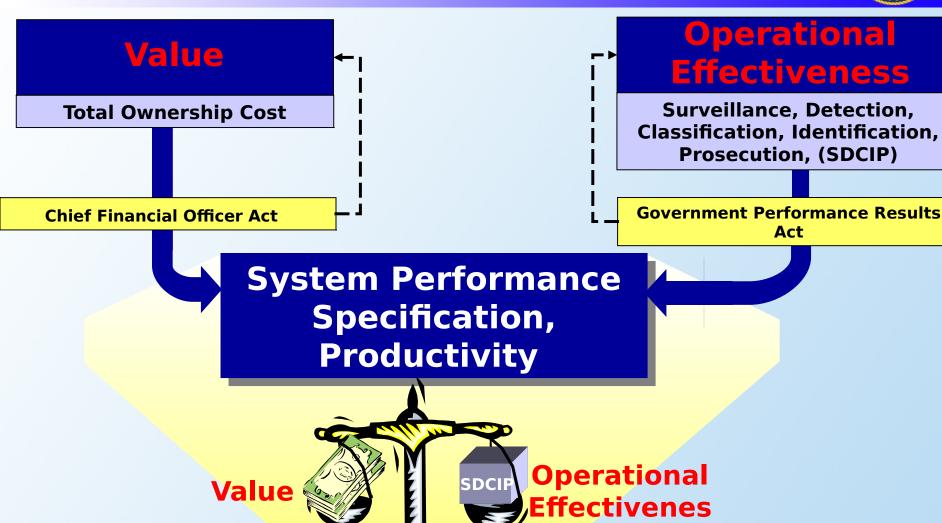
#### **Mission Statement:**

 Be the best at what we do. Set a standard of excellence for all to emulate as we develop, acquire, deploy, and sustain an operationally effective and affordable Integrated Deepwater System.



# PWATER Performance Based Acquisition

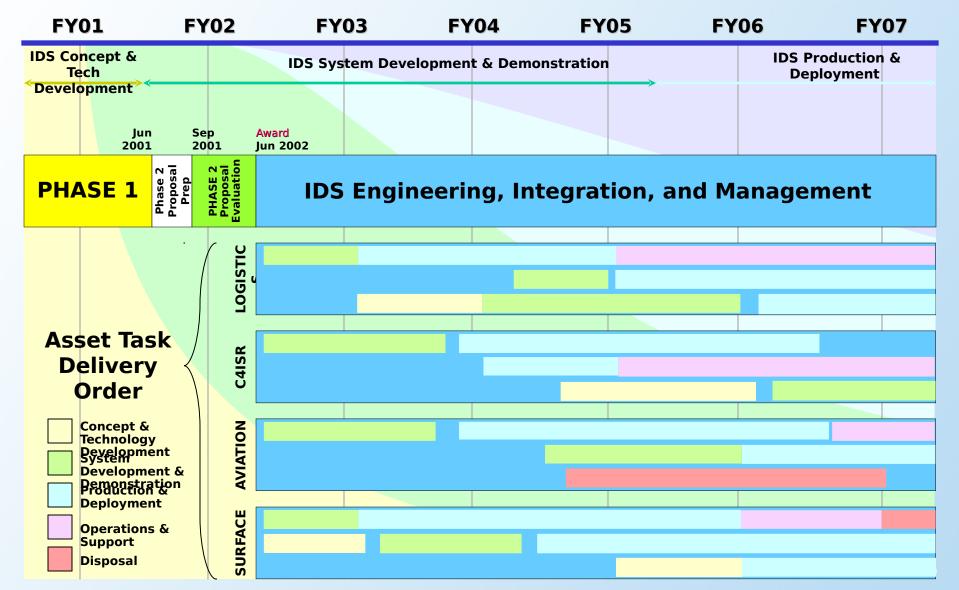






# Notional Delivery/Task Order Schedule







# Contract Philosophy



"The front-end engineering of institutional arrangements and strategic systems is a far greater determinant of the success or failure of Large Engineering Projects than are the more tangible aspects of project engineering and management....Projects become successful not because they have been optimally selected, but because sponsors and partners commit to sharing risks, shaping choices in turbulent environments, and embracing uncertainties."



# Contract Structure



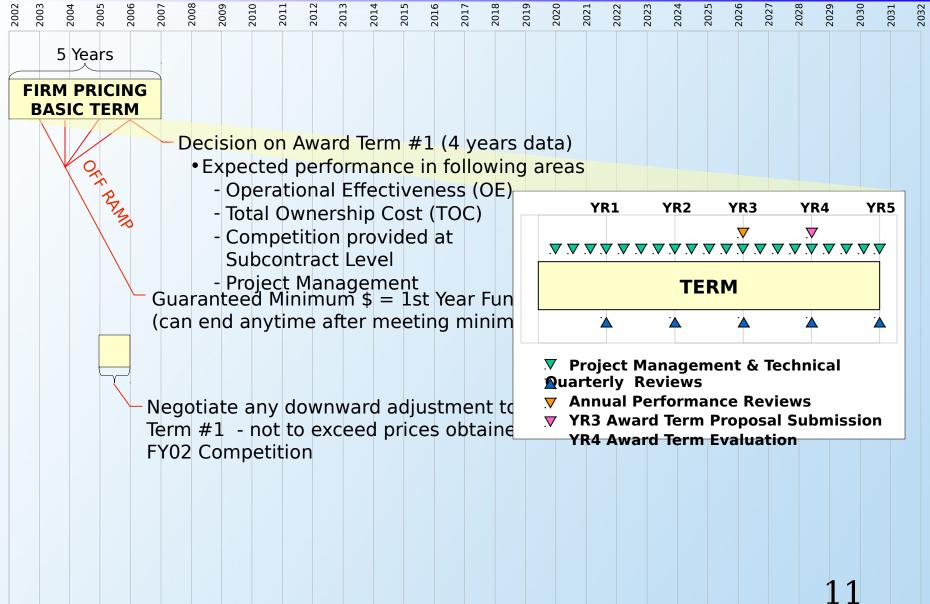
- A Performance Based Acquisition
  - Specifications, products and program success judged on system (vice asset) performance
    - Operational Effectiveness
    - Total Ownership Cost
- Partnering with a single Integrated Deepwater System (IDS) contractor the Systems Integrator who will:
  - Upgrade and/or replace ships, aircraft, logistics systems, and C4ISR through its team of subcontractors
  - Integrate the entire system of ships, aircraft, logistics systems, and C4ISR.
- Five-year base award with option to award up to five additional five-year award terms.
- Delivery Order/Task Order Contract will break annual funding into usable segments in accordance with A-11.
- Contract incorporates many acquisition reforms, innovations and current best practices, and is constructed to provide flexibility to adapt to:
  - Budget fluctuations
  - Legislative mandates

- > Technology refreshment
- Mission evolution



#### Award Term Contract

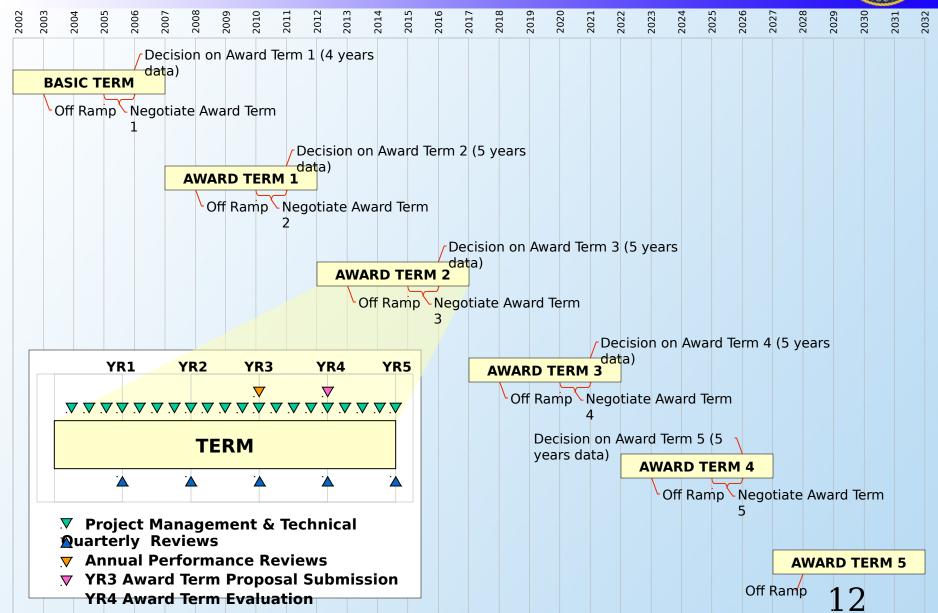






# System Integrator Monitoring



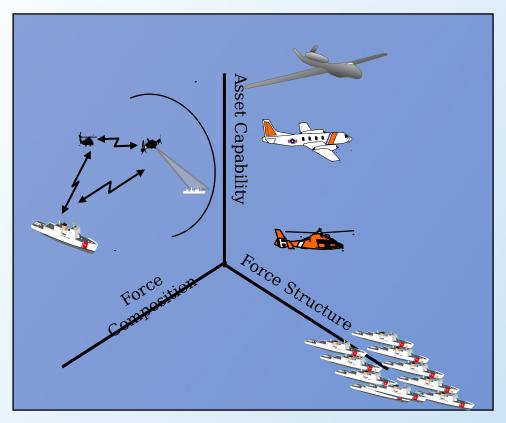




# Contract Flexibility



# Flexible Design & Procurement Strategy for Changing Requirements



System Integration requirements include:

- Modularity and Commonality
- Integrated CONOPS & CONLOG
- Systems Engineering including technology refresh
- C4ISR Architecture development at both asset & system level
- Developmental testing
- IDS Performance/Cost Analysis



# Innovation: Partnership

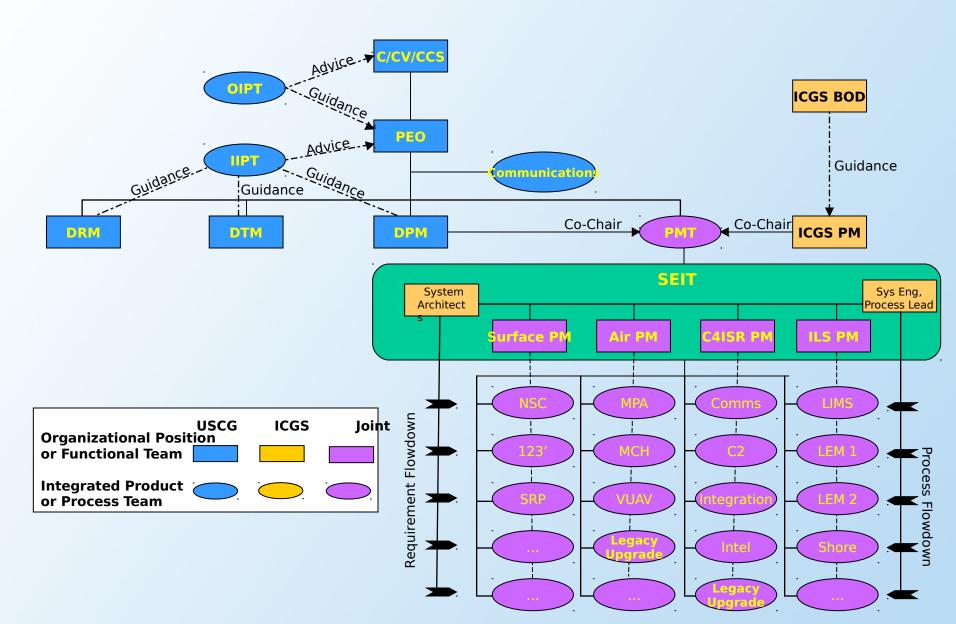


- Public and Private Partnership Effectiveness
- Support Internal Organization
  - Collocation at the System Integrated Program Office (SIPO)
  - > Integrated Product Teams
- Higher plane of trust and coordination no hidden agendas
- Commitment to higher quality of service Long term
- Genuine cost-sharing



# USCG/ICGS IPT Structure

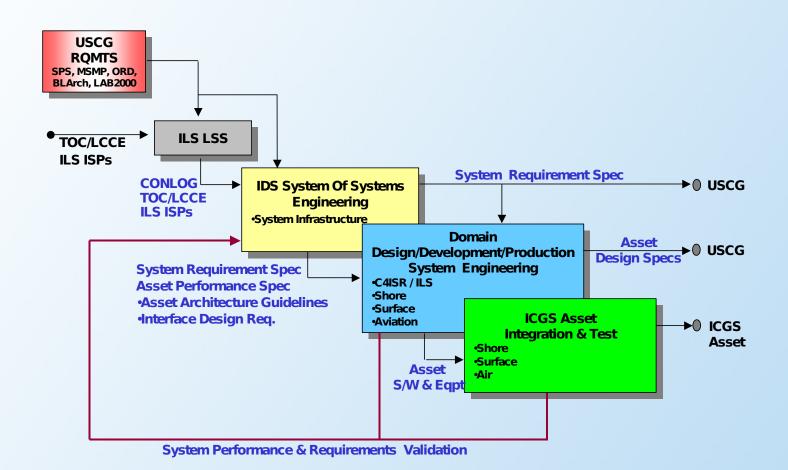






# Requirements 'Flow-down"







## Process 'Flow-down"



#### IDS Plans & Processes

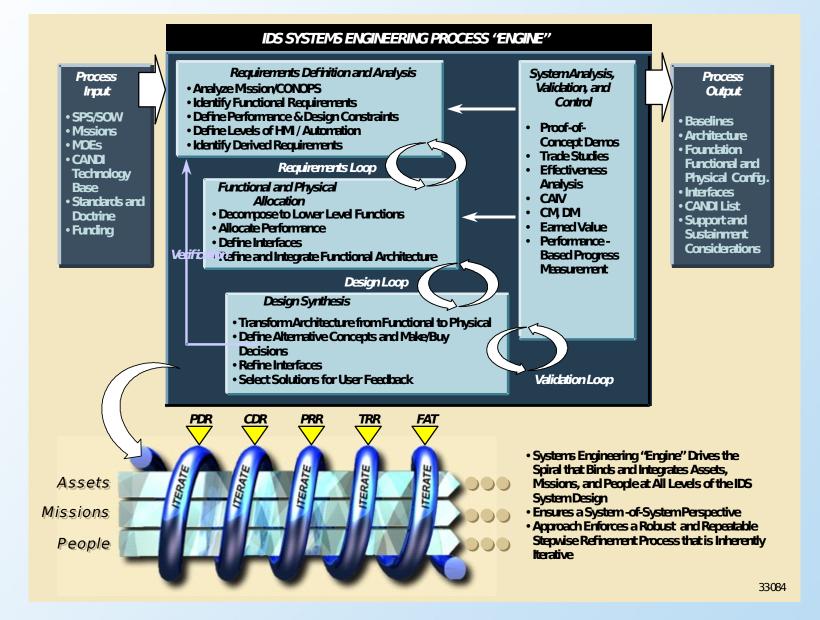
- Project Management Plan (PMP)
- Integrated Master Schedule (IMS)
- Risk Management Plan (RMP)
- Requirements Management Plan
- Configuration Management (CM) Plan
- Data Management (DM) Plan
- Test and Evaluation Program Plan (TEPP)
- Quality Assurance (QA) Plan
- C4ISR Systems Engineering Management Plan (C4ISR SEMP)
- Software Development Plan (SDP)
- System Safety Plan (SSP)
- Integrated Support Plan (ISP)
- ICGS Contractor Work Breakdown Structure (CWBS)
- Integrated Product and Process Development (IPPD)
- Interface Requirements Documents (IRDS)
- Concept Of Operations (CONOPS)

- Key Performance Parameters (KPPs)
- Measures of Performance (MOP)
- Analysis of Alternatives (AoA)
- Measures of Effectiveness (MOEs)
- Required Operational Capabilities (ROC)
- Simulation Test and Evaluation Process (STEP)
- Earned Value Management System (EVMS)
- Data Management Plan (DMP)
- Contractor Deliverable Requirements List (CDRL)
- Technical Performance Measures (TPM)
- Design Reference Missions (DRM)
- Integrated Management Plan (IMP)
- Reliability, Maintainability, and Availability (RMA) Plan
- System Training Plan
- System Level of Repair Analysis (LORA) Plan
- Support and Test Equipment (S&TE) Plan
- Technology Obsolescence Prevention (TOP) Plan



# System Engineering





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U.S. COAST GUARD





Questions?

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